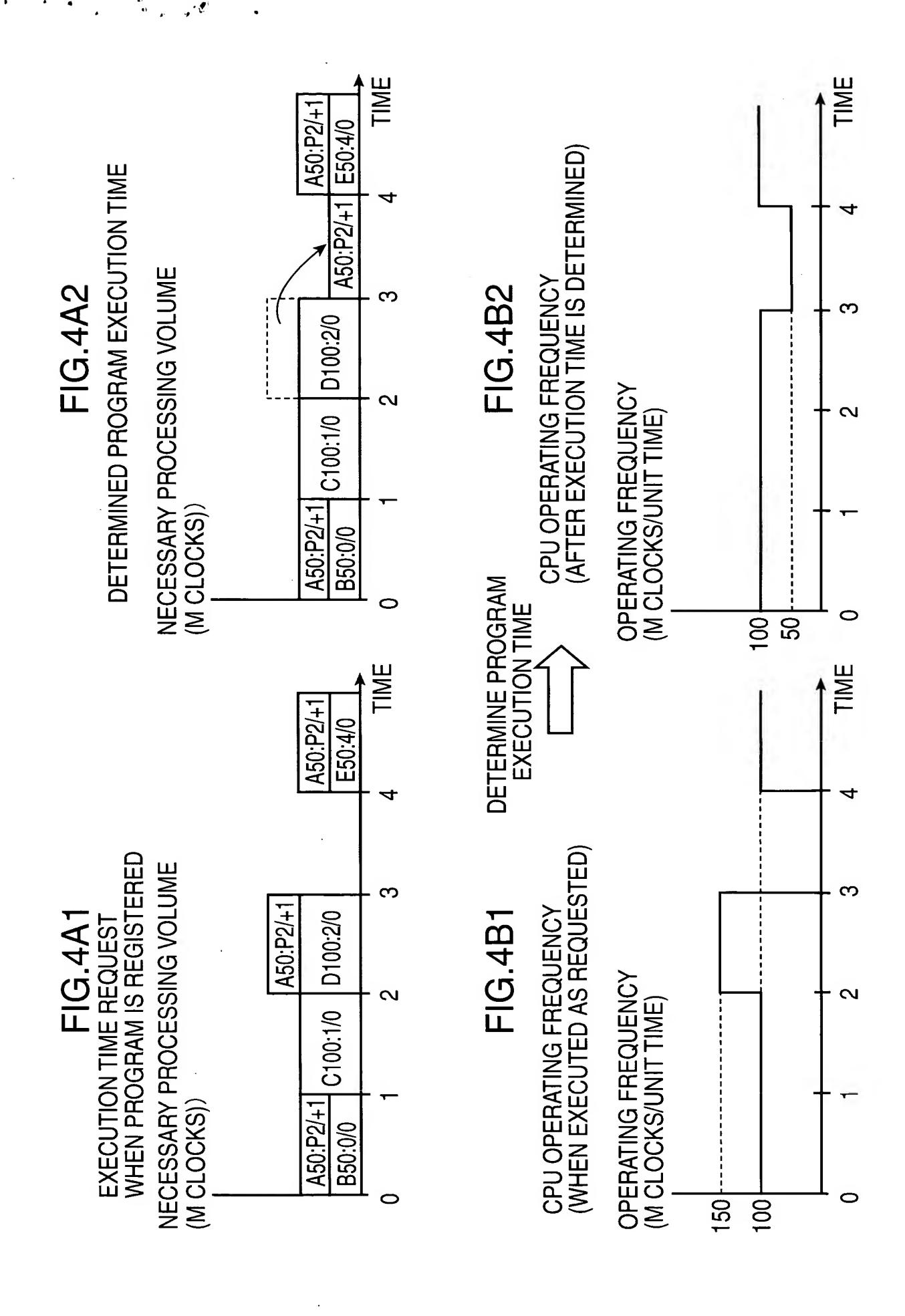
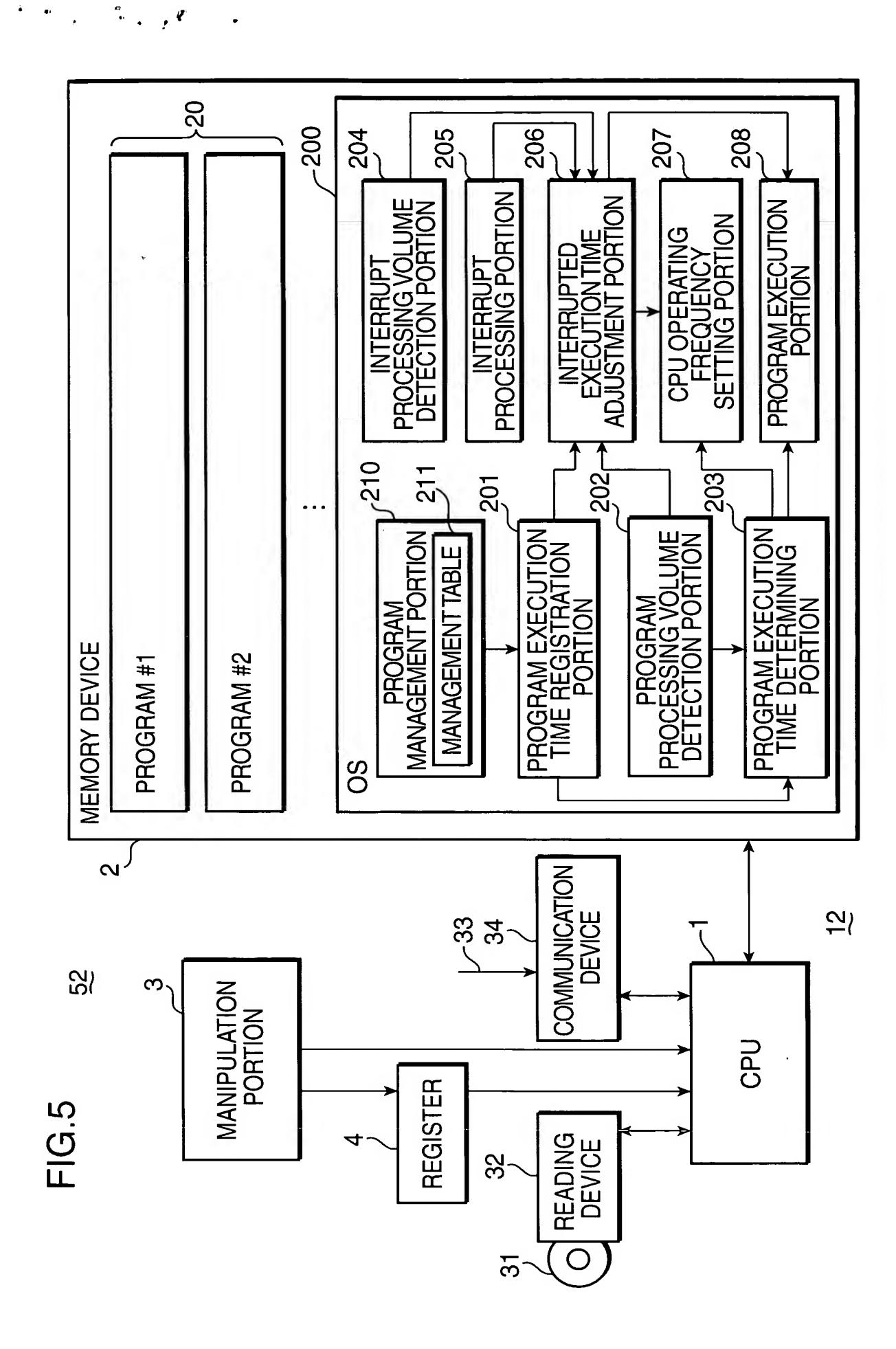


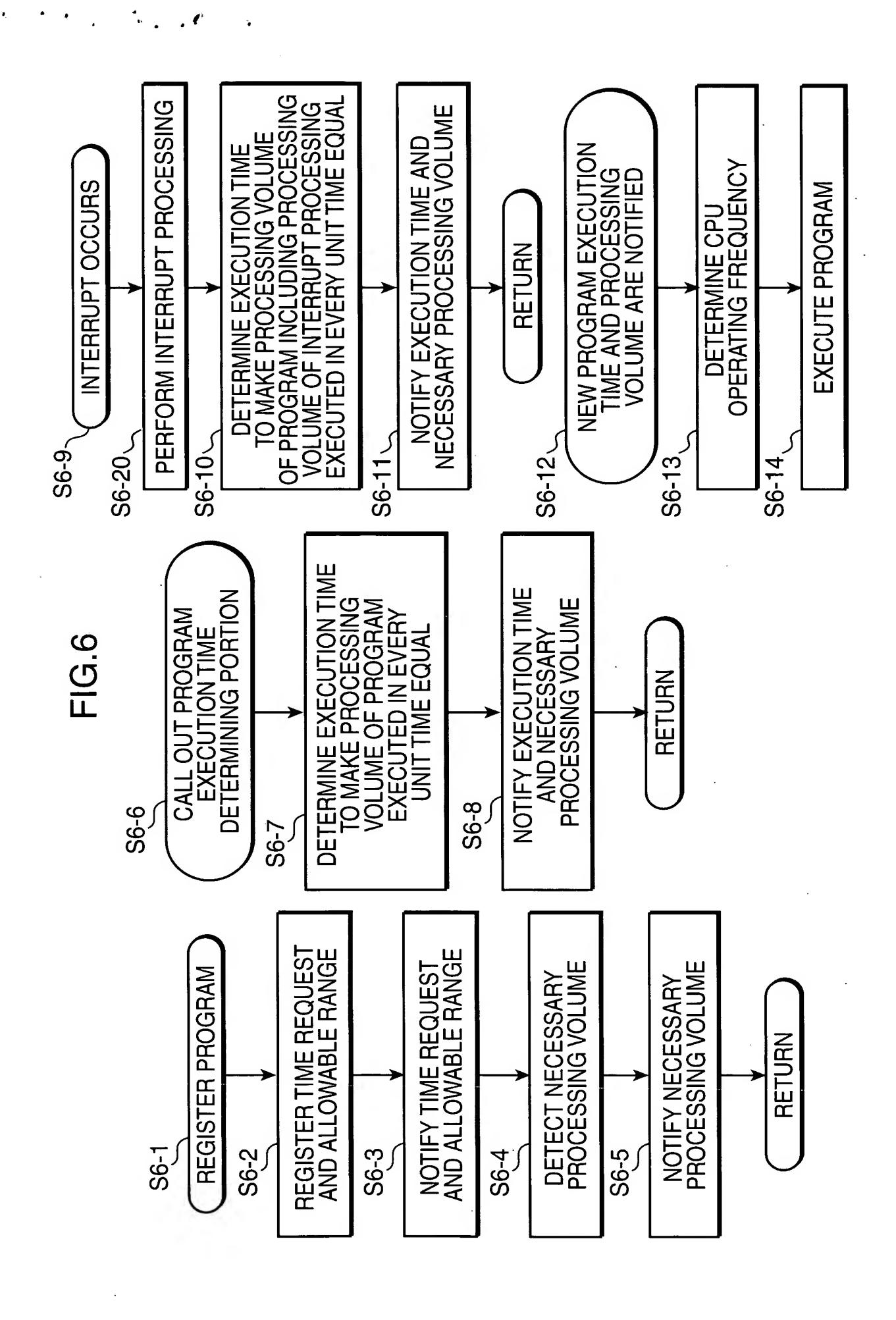
FIG.3A2

FIG.3A1

EXECUTION TIME REQUEST







ന B50:0/+2 D100:2/0 CPU OPERATING FREQUENCY (AFTER RE-DETERMINATION) RE-DETERMINED PROGRAM 2 FIG.7B2 2 OPERATING FREQUENCY (M CLOCKS/UNIT TIME) C100:1/0 A50:0/+2 **EXECUTION TIME** INTERRUPT PROCESSING 150 0 150 0 PROCESSING VOLUME (M CLOCKS) NECESSARY DETERMINE PROGRAM EXECUTION TIME ന <u>က</u> D100:2/0 2 OCCURRENCE OF INTERRUPT 2 CPU OPERATING FREQUENCY (BEFORE RE-DETERMINATION) C100:1/0 FIG.7B1 OPERATING FREQUENCY (M CLOCKS/UNIT TIME) INTERRUPT PROCESSING 150 B50:0/+2 A50:0/+2 NECESSARY PROCESSING VOLUME (M CLOCKS) 0 100 250

#1

FIG.7A2

FIG.7A1

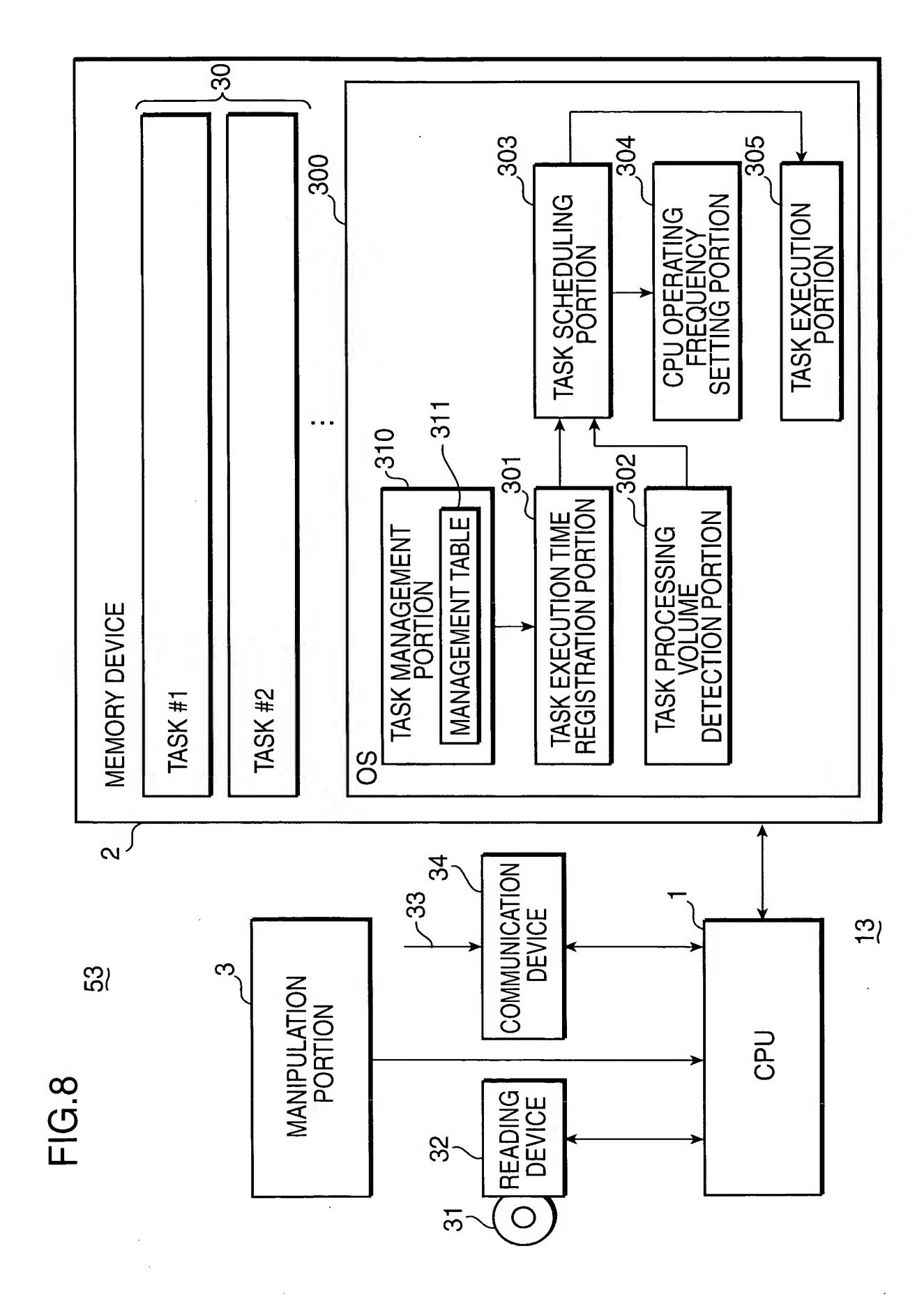
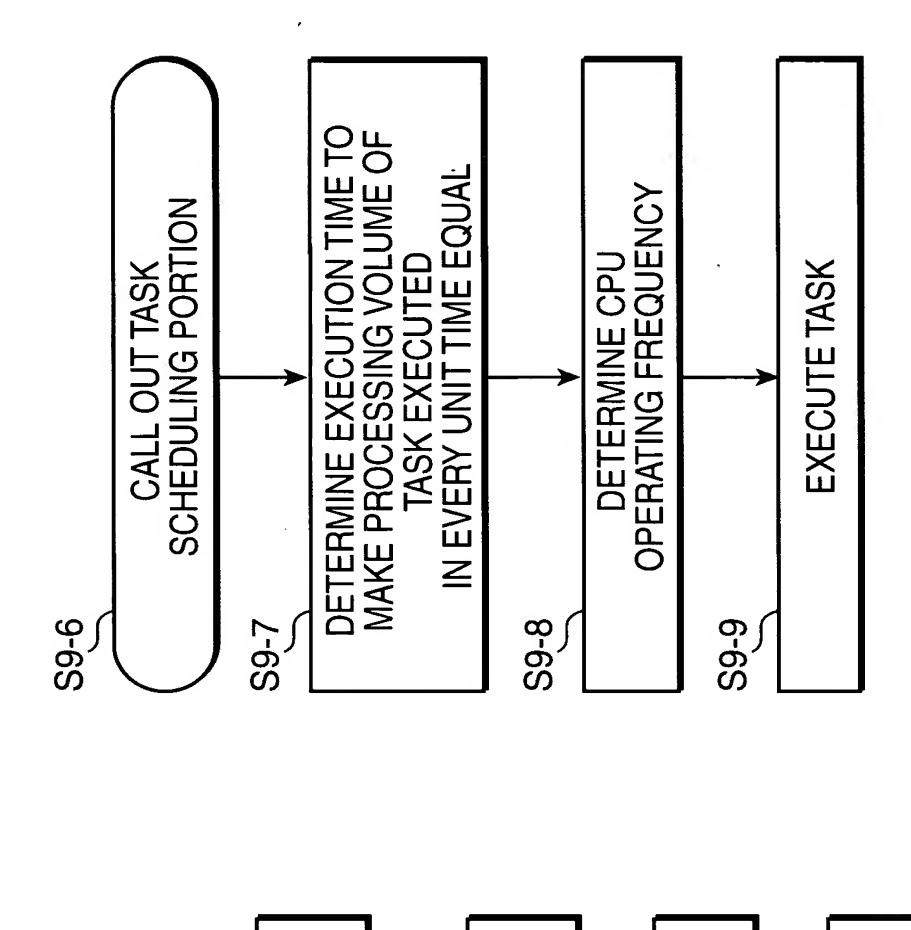


FIG.9



NOTIFY TIME REQUEST AND ALLOWABLE RANGE

S9-4

89-3

DETECT NECESSARY PROCESSING VOLUME

S9-5

NOTIFY NECESSARY PROCESSING VOLUME

RETURN

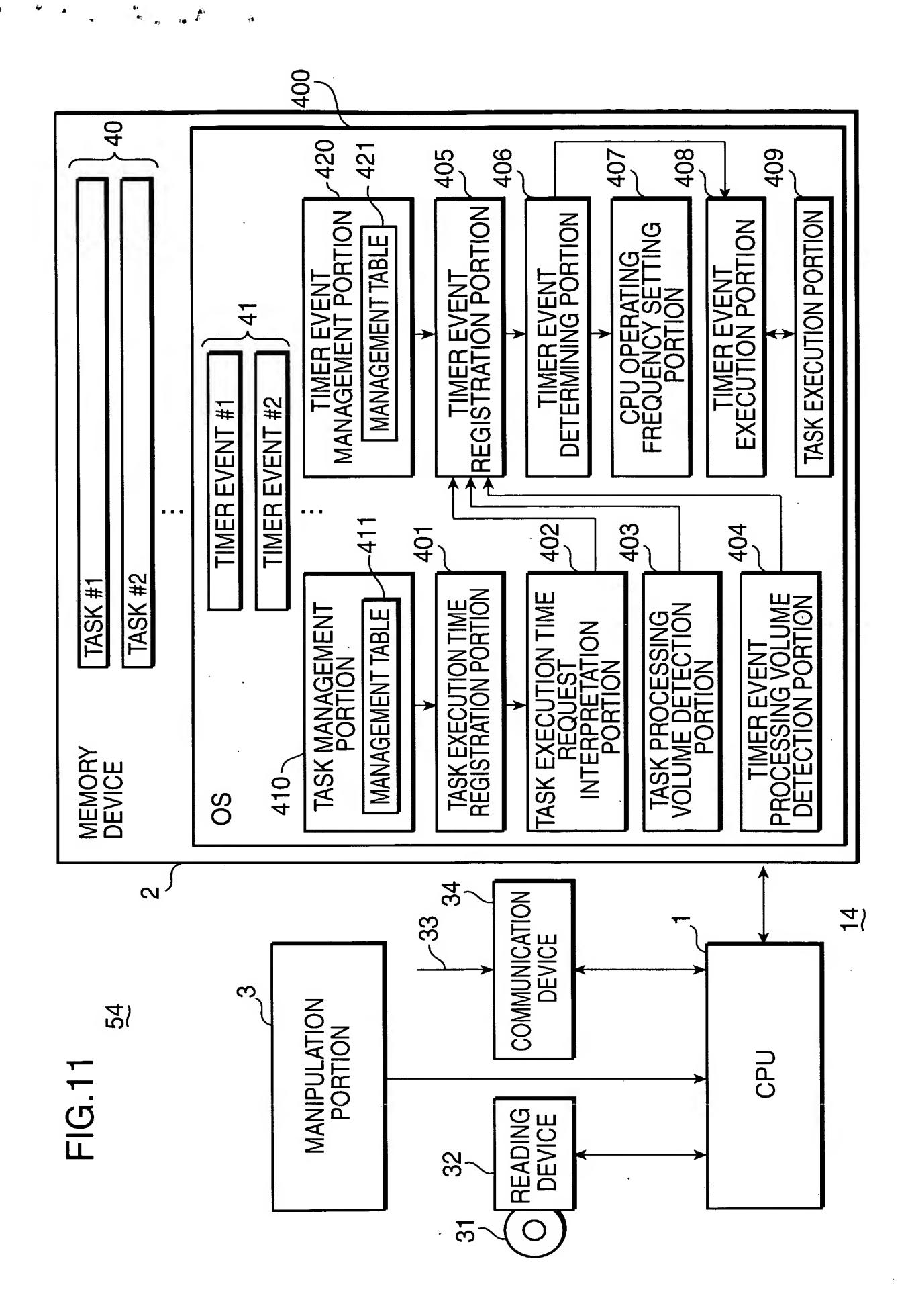
REGISTER TIME REQUEST AND ALLOWABLE RANGE

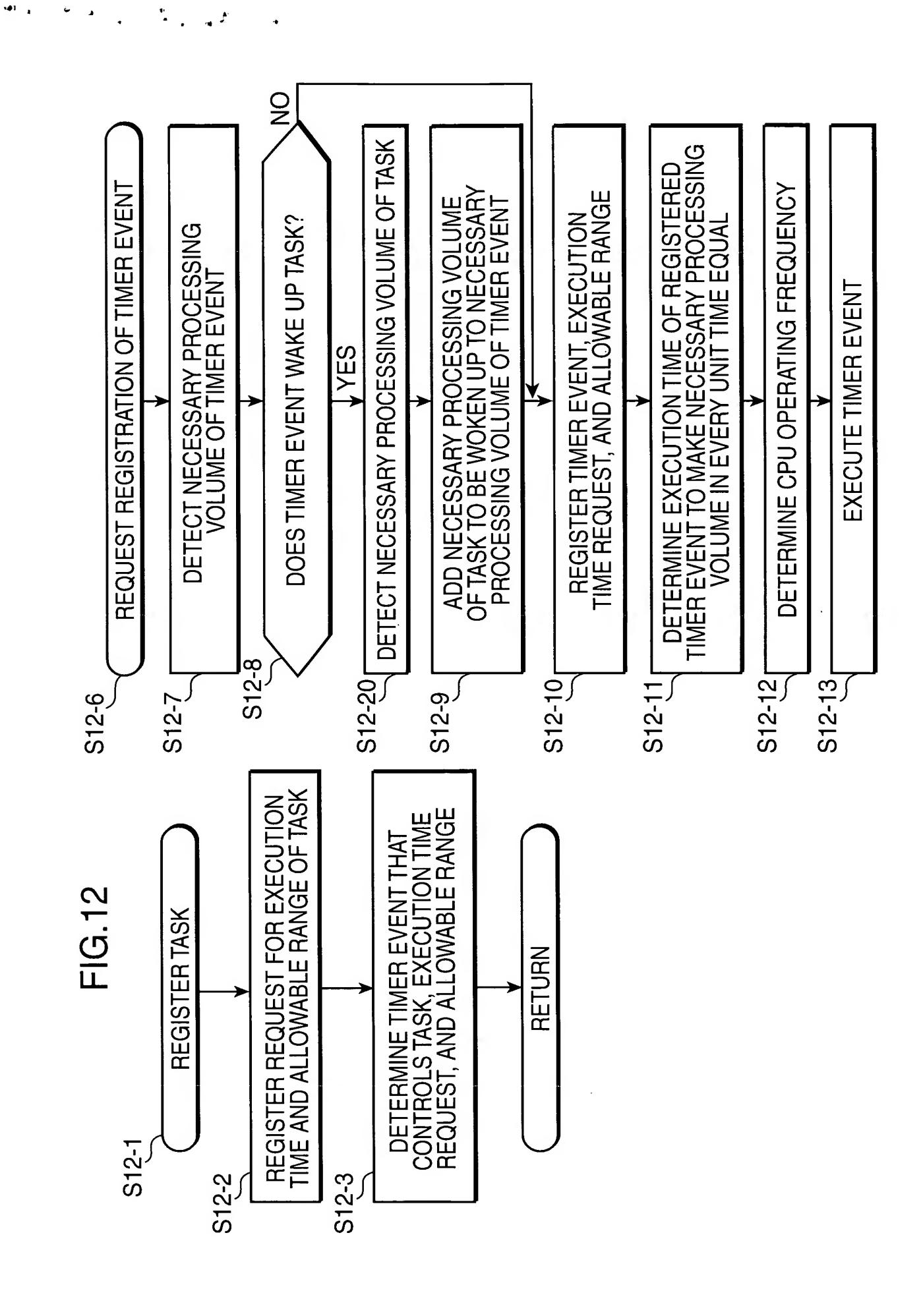
REGISTER TASK

S9-5

S9-1

TIME CPU OPERATING FREQUENCY (SCHEDULED USING ALLOWABLE RANGE) SCHEDULING USING ALLOWABLE RANGE က A200:E1/+2 FIG. 10A2 FIG. 10B2 S OPERATING FREQUENCY (M CLOCKS/UNIT TIME) B100:E2/(-1,0) 0 100 NECESSARY PROCESSING VOLUME (M CLOCKS) က CPU OPERATING FREQUENCY (NORMAL) NORMAL DEAD LINE SCHEDULE 2 B100:E2/(-1,0) \sim FIG. 10A1 FIG. 10B1 OPERATING FREQUENCY (M CLOCKS/UNIT TIME) A200:E1/+2 NECESSARY PROCESSING VOLUME (M CLOCKS) 0 200 100





3 TIME CPU OPERATING FREQUENCY (AFTER EXECUTION TIME IS DETERMINED) က C50+50 :2/0 S 2 FIG. 13B2 DETERMINED TIMER EVENT EXECUTION TIME OPERATING FREQUENCY (M CLOCKS/UNIT TIME) A50+50 :0/+2 B100:0/0 100 PROCESSING VOLUME (M CLOCKS) **NECESSARY** DETERMINE TIMER EVENT EXECUTION TIME 3 TIME C50+50 EXECUTION TIME REQUEST WHEN TIMER EVENT IS REGISTERED :2/0 (WHEN EXECUTED AS REQUESTED) S S FIG. 13B1 CPU OPERATING FREQUENCY OPERATING FREQUENCY (M CLOCKS/UNIT TIME) B100:0/0 A50+50 :0/+2 0 VOLUME (M CLOCKS) 0 **PROCESSING** 200 100 **NECESSARY**

FIG. 13A2

FIG. 13A1

